UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
WONG, BLANCHE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	**Applicant(s)**
Office Action Summary	09/992,669	LUGIL ET AL.
	Examiner	**Art Unit**	
	Blanche Wong	2616	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 April 2007*.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14,16-29 and 34-39* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14,16,17,19,27-29 and 34-39* is/are rejected.

7)☒ Claim(s) *18,20-26* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *Feb'07*.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed April 30, 2007 have been fully considered but they are not persuasive.

With regard to claim 1, Applicant states that "Robinson does not show the processor in direct communication with the signal acquisition component." Summary of Interview, Results of Interview. Examiner notes that no agreement was reached during the interview on February 26. 2007. See Interview Summary.

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

2.   If Applicant is suggesting that the processor is connected/coupled to the signal acquisition component, such a limitation is not recited in the claims. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the processor is connected/coupled to the signal acquisition component) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 103

3.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

4.   **Claims 1-3,7,8,14** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Robinson et al. (U.S. Pat No. 6,122,291) in view of Fickes et al. (U.S. Pat No.

6,031,833) and Miller (U.S. Pat No. 5,511,067).

With regard to claim 1, Robinson discloses a wireless transmitter/receiver

(device 30 in Fig. 3, col. 3, line 56) comprising:

a wideband transmitter **(wideband transmitter 32 in Fig. 3)** comprising at least

one of a first RAM and first registers **(program memory 38 in Fig. 38, col. 3, line 62)**,

arranged to store first parameters **(parameters, col. 4, line 5)** to operate the transmitter

(See Also "the device may be a transmitter or a transceiver and that appropriate

substitution and modification of the wideband receiver circuitry and the receiver

control routines ...", col. 4, lines 19-21);

a wideband receiver **(wideband receiver 32 in Fig. 3, col. 3, lines 56-57)**

comprising at least one of a second RAM and second registers **(program memory 38**

in Fig. 38, col. 3, line 62), arranged to store second parameters **(parameters, col. 4,**

line 5) to operate the receiver;

a signal acquisition component **(antenna 34 in Fig. 3, col. 3, line 57)**; and

a processor **(control processor)** **("...a control processor 37 arranged to**

control and orchestrate operation of the receiver [or transmitter or

transceiver]...", col. 3, line 59-60; see also Fig. 3) in data communication **(control**

processor is connected to the wideband transmitter/receiver and antenna in Fig.

3) with the W-CDMA transmitter, the W-CDMA receiver and the signal acquisition

component, wherein the processor provides for software **(program)** configuration

(control routine) ("program memory (for storing receiver control routines)...", col.

3, lines 62-63 and "control routines are principally applicable to the dynamic

adaptation of a modulation rate for a device ...", col. 4, lines 10-11) of the first and

second parameters.

However, Robinson fails to explicitly show distinctly RAM and registers, and CDMA

transmitter and receiver.

In an analogous art, Fickes discloses a wireless transmitter/receiver with RAM

(RAM) and registers **(registers) (RAM and ROM for providing storage registers and**

programmed operations, col. 3, lines 3-4). Miller discloses a wireless

transmitter/receiver that are CDMA compatible **(CDMA, col. 3, line 57)**.

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine transmitter/receiver with RAM and registers as taught in

Fickes and CDMA transmitter/receiver as taught in Miller, with Robinson, to provide for

software control and CDMA compatibility.

With regard to claim 2, Robinson further discloses a hardware initial

synchronization block **(system control unit 44 in Fig. 3, col. 3,line 65)** which has at

least one of reprogrammable parameters **(parameters, col. 4, line 5)** and

reprogrammable algorithms **(algorithms, col. 4, line 3)**.

With regard to claim 3, Robinson further discloses a processor that controls at least one of the first RAM and the first registers, and the second RAM and the second registers **(The control processor is coupled to program memory, col. 3, lines 61-62)**.

With regard to claim 7, Robinson further discloses a processor, a transmitter and a receiver that process waveform of signals in accordance with a predetermined format, wherein the predetermined format is IS-95 **(IS-95, col. 1, line 17)**.

With regard to claim 8, Robinson further discloses a transmitter comprises synchronization hardware to slave transmit start epochs to events external to the transmitter **(synchronization, col. 5, line 33)**.

With regard to claim 14, Robinson further discloses a transmitter for multi-code transmission **(BPSK, QPSK, QAM, col. 1, lines 46-53)**.

5.   **Claims 4-6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson, Fickes and Miller as applied to claim 1 above, and further in view of Nguyen et al. (U.S. Pat No. 6,411,661).

With regard to claim 4, the combination of Robinson, Fickes and Miller discloses the communication device of claim 1. However, the combination fails to explicitly show

a W-CDMA transmitter that comprises a first programmable pulse shaping filter, and a W-CDMA receiver that comprises a second programmable pulse shaping filter.

In an analogous art, Nguyen discloses a GMSK demodulator in a receiver in Fig. 1. It is Examiner's position that there must be a GMSK modulator in a transmitter ("... **a transmitted GMSK phase modulated carrier signal ...", col. 2, line 9 and "GMSK modulators and demodulators, col. 2, line 37).**

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a programmable pulse shaping filter in a W-CDMA transmitter and receiver as taught in Nguyen, with Robinson, Fickes and Miller, in order to implement GMSK for compact spectral occupancy and a constant envelope. Nguyen, col. 1, lines 21-22.

With regard to claim 5, the combination of Robinson, Miller and Nguyen discloses the communication device of claim 4. Robinson further discloses a transmitter and receiver that interface with a GSM front-end **(GSM, col. 1, line 35)**.

Nguyen further discloses a first pulse shaping filter and a second pulse shaping filter that are programmable to perform GMSK filtering **(see analysis for claim 4)**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a transmitter and receiver that interface with a GSM front-end as taught in Robinson, and a first pulse shaping filter and a second pulse shaping filter that are programmable to perform GMSK filtering as taught in Nguyen, in order to achieve GSM communication and to implement GMSK for compact spectral occupancy and a constant envelope. Nguyen, col. 1, lines 21-22.

With regard to claim 6, the combination of Robinson, Fickes, Miller and Nguyen discloses the communication device of claim 5. However, the combination fails to explicitly show a processor that performs a protocol in according with a GSM protocol stack.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a processor that performs a protocol in according with a GSM protocol stack, with the combination of Robinson, Fickes, Miller and Nguyen in order to support GSM. (*See Also* analysis for claim 5).

6.   **Claims 9-12,29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson, Fickes and Miller as applied to claims 1 and 8 above, and further in view of non patent literature document – Sirius Communications Press Releases, CDMAX: Sirius Announces World's First Software-Configurable W-CDMA Core for Third Generation Wireless Handsets and Base Stations, June 14, 1999 ("Sirius").

With regard to claim 9, the combination of Robinson, Fickes and Miller discloses the communication device of claim 8. However, the combination fails to explicitly show a PN code generator that is a RAM in which PN codes are downloaded under control of the processor.

In an analogous art, Sirius discloses a PN code generator that is a RAM in which PN codes are downloaded under control of the processor **(RAM based PN code storage on-chip, Section Reconfigurable Architecture)**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a PN code generator that is a RAM in which PN codes are downloaded under control of the processor as taught in Sirius, with Robinson and Miller to implement a highly integrated W-CDMA test chip that can be software reconfigured to support mobile station and base station configurations. Sirius, para. 1 and 2.

With regard to claim 10, the combination of Robinson, Fickes and Miller discloses the communication device of claim 8. However, the combination fails to explicitly show a scrambling code generator that is a programmable Gold Code generator.

In an analogous art, Sirius discloses a scrambling code generator **(scrambler and scrambler code in Figure)**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a scrambling code generator as taught in Sirius, with Robinson and Miller, to implement a highly integrated W-CDMA test chip that can be

software reconfigured to support mobile station and base station configurations. Sirius, para. 1 and 2.

With regard to claim 11, the combination of Robinson, Fickes and Miller discloses the communication device of claim 8. Robinson further discloses a QPN channel **(Quadrature, col. 1, line 49)**. However, the combination fails to explicitly show UMTS forward or return link transmission.

In an analogous art, Sirius discloses UMTS communication **(para. 1)**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a QPN channel that executes UMTS forward or return link transmission as taught in Sirius, with Robinson and Miller, to implement a highly integrated W-CDMA test chip that can be software reconfigured to support mobile station and base station configurations. Sirius, para. 1 and 2.

With regard to claim 12, the combination of Robinson, Fickes and Miller discloses the communication device of claim 8. However, the combination fails to explicitly show an amplification of a spreader output that performs a transmit power control.

In an analogous art, Sirius discloses an amplification of a spreader output **(output of spreaders into triangle/amplifier in Figure; see also power dissipation in Section Key Technical Features)**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine an amplification of a spreader output that performs a transmit power control as taught in Sirius, with Robinson and Miller, to implement a highly

integrated W-CDMA test chip that can be software reconfigured to support mobile

station and base station configurations. Sirius, para. 1 and 2.

With regard to claim 29, the combination of Robinson, Fickes and Miller discloses

the communication device of claim 1. However, the combination fails to explicitly show

a device that performs ranging measurement to geostationary satellites.

In an analogous art, Sirius discloses a device that performs ranging

measurement to geostationary satellites **(GPS system, para. 1)**.

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine a device that performs ranging measurement to geostationary

satellites as taught in Sirius, with Robinson and Miller, to implement a highly integrated

W-CDMA test chip that can be software reconfigured to support mobile station and base

station configurations. Sirius, para. 1 and 2.

7.   **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over

Robinson and Miller as applied to claim 1 above, and further in view of non-patent

literature document - Philips et al., Programmable CDMA IF Transceiver ASIC for

Wireless Communications, IEEE 1995 Custom Integrated Circuits Conference.

With regard to claim 13, the combination of Robinson and Miller discloses the communication device of claim 1. However, the combination fails to explicitly show a transmitter that comprises a time interpolator to perform sub-chip time alignments.

In an analogous art, Philips discloses a transmitter that comprises a time interpolator to perform sub-chip time alignments (**"... the sampling clock ... the transmitter chain and the receiver chain ... external processor clock...", Section ASIC architecture**).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a transmitter that comprises a time interpolator to perform sub-chip time alignments as taught in Philips, with Robinson and Miller, to provide for an ASIC architecture for faster data delivery. Philips, Section ASIC architecture.

8.   **Claims 34-36** are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson et al. (U.S. Pat No. 6,122,291) in view of Fickes, Miller, Lee (U.S. Pat No. 5,345,472), and Armstrong et al. (U.S. Pat No. 5,559,828).

With regard to claim 34, Robinson discloses a wireless transmitter/receiver **(device 30 in Fig. 3, col. 3, line 56)** comprising:

a wideband transmitter **(wideband transmitter 32 in Fig. 3)** comprising at least one of a first RAM and first registers **(program memory 38 in Fig. 38, col. 3, line 62)**, arranged to store first parameters **(parameters, col. 4, line 5)** to operate the transmitter **(See Also "the device may be a transmitter or a transceiver and that appropriate**

substitution and modification of the wideband receiver circuitry and the receiver

control routines ...", col. 4, lines 19-21);

a wideband receiver **(wideband receiver 32 in Fig. 3, col. 3, lines 56-57)**

comprising at least one of a second RAM and second registers **(program memory 38**

in Fig. 38, col. 3, line 62), arranged to store second parameters **(parameters, col. 4,**

line 5) to operate the receiver;

a signal acquisition component **(antenna 34 in Fig. 3, col. 3, line 57)**; and

a processor **(control processor)** **("...a control processor 37 arranged to**

control and orchestrate operation of the receiver [or transmitter or

transceiver]...", col. 3, line 59-60; see also Fig. 3) in data communication **(control**

processor is connected to the wideband transmitter/receiver and antenna in Fig.

3) with the W-CDMA transmitter, the W-CDMA receiver and the signal acquisition

component, wherein the processor provides for software **(program)** configuration

(control routine) **("program memory (for storing receiver control routines)...", col.**

3, lines 62-63 and "control routines are principally applicable to the dynamic

adaptation of a modulation rate for a device ...", col. 4, lines 10-11) of the first and

second parameters,

wherein the transmitter comprises synchronization hardware to slave transmit

start epochs to events external to the transmitter **(synchronization, col. 5, line 33)**.

However, Robinson fails to explicitly distinctly RAM and registers, and CDMA

transmitter and receiver; and the receiver further comprises a pulse shaping filter, a

level control block configured to receive an output from the pulse shaping filter, a

demodulator configured to receive an output from the level control block and track multi-

path components received from a base station, and a reference demodulator configured

to receive the output from the level control block and configured to estimate noise.

In an analogous art, Fickes discloses a wireless transmitter/receiver with RAM

(RAM) and registers **(registers) (RAM and ROM for providing storage registers and**

programmed operations, col. 3, lines 3-4). Miller discloses a wireless

transmitter/receiver that are CDMA compatible **(CDMA, col. 3, line 57)**. Lee discloses

a receiver **(receiver 20 in Fig. 4, col. 5, line 28)** comprising a pulse shaping filter **(filter**

303 in Fig. 4, col. 5, line 33), a level control block **(demodulator 305, matching filter**

307, equalizer 400, DSP and controller 320, etc. in Fig. 4, col. 5, lines 27-62)

configured to receive an output from the pulse shaping filter **(see Fig. 4)**, and a

demodulator **(equalizer)** track multi-path components received from a base station **(the**

equalizer despreads the signal, col. 5, lines 55-56). Armstrong discloses a reference

demodulator configured to estimate noise **("reference demodulator ... as a decision**

circuit to eliminate noise product terms ...", col. 9, lines 41-46).

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine transmitter/receiver with RAM and registers as taught in

Fickes; CDMA transmitter/receiver as taught in Miller; and a receiver comprises a pulse

shaping filter, a level control block configured to receive an output from the pulse

shaping filter, a demodulator configured to receive an output from the level control block

and track multi-path components received from a base station, and a demodulator

configured to receive the output from the level control block as taught in Lee; and a

reference demodulator configured to estimate noise as taught in Armstrong, with

Robinson, to provide for software control (Fickes), CDMA compatibility (Miller) and a

receiver that has a pulse shaping filter, a level control block, a demodulator (Lee) and a

reference demodulator to eliminate noise (Armstrong, col. 9, line 46).

With regard to claim 35, Robinson further discloses the processor **(control**

processor) ("...a control processor 37 arranged to control and orchestrate

operation of the receiver [or transmitter or transceiver]...", col. 3, line 59-60; see

also Fig. 3) is in direct data communication **(control processor is connected to the**

wideband transmitter/receiver and antenna in Fig. 3) with the signal acquisition

component **(antenna 34 in Fig. 3, col. 3, line 57)**.

With regard to claim 36, the combination of Robinson, Fickes and Miller disclose

the communication device of claim 1. However, the combination fails to explicitly show

a receiver further comprises a pulse shaping filter, a level control block configured to

receive an output from the pulse shaping filter, a demodulator configured to receive an

output from the level control block and track multi-path components received from a

base station, and a reference demodulator configured to receive the output from the

level control block and configured to estimate noise.

In an analogous art, Lee discloses a receiver **(receiver 20 in Fig. 4, col. 5, line**

28) comprising a pulse shaping filter **(filter 303 in Fig. 4, col. 5, line 33)**, a level control

block **(demodulator 305, matching filter 307, equalizer 400, DSP and controller 320,**

etc. in Fig. 4, col. 5, lines 27-62) configured to receive an output from the pulse

shaping filter **(see Fig. 4)**, and a demodulator **(equalizer)** track multi-path components

received from a base station **(the equalizer despreads the signal, col. 5, lines 55-56).**
Armstrong discloses a reference demodulator configured to estimate noise **("reference
demodulator ... as a decision circuit to eliminate noise product terms ...", col. 9,
lines 41-46).**

At the time of the invention, it would have been obvious to a person of ordinary
skill in the art to combine a receiver comprises a pulse shaping filter, a level control
block configured to receive an output from the pulse shaping filter, a demodulator
configured to receive an output from the level control block and track multi-path
components received from a base station and a demodulator configured to receive the
output from the level control block as taught in Lee; and a reference demodulator
configured to estimate noise as taught in Armstrong, with Robinson, to provide for a
receiver that has a pulse shaping filter, a level control block, a demodulator (Lee) and a
reference demodulator to eliminate noise (Armstrong, col. 9, line 46).

9.   **Claims 16,19,27** are rejected under 35 U.S.C. 103(a) as being unpatentable over
Robinson, Fickes, Miller, Lee and Armstrong as applied to claim 36 above, and further
in view of Meng et al. (U.S. 6,641,834) (of record).

With regard to claim 16, the combination of Robinson, Fickes, Miller, Lee and

Armstrong discloses the communication device of claim 36. However, the combination

fails to explicit show a receiver that comprises a downconverter.

Meng discloses a receiver with a downconverter **(ADC 122 in Fig. 1, col. 4, line**

62).

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine a downconverter in a receiver as taught in Meng, with

Robinson, Miller, Lee and Armstrong to convert spread spectrum signal to a digital

baseband signal for processing. Meng, col. 4, line 63.

With regard to claims 19 and 27, the combination of Robinson, Fickes, Miller, Lee

and Armstrong discloses the communication device of claim 36. However, the

combination fails to explicit show a receiver that comprises a runtime control loop.

Meng discloses a receiver with a runtime control loop **(DLL, col. 4, line 64)**.

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine a runtime control loop in a receiver as taught in Meng, with

Robinson, to synchronize the digital baseband signal. Meng, col. 4, lines 64-65.

10.   **Claims 17 and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Robinson, Fickes, Miller, Lee and Armstrong as applied to claim 36 above, and

further in view of Sirius.

With regard to claim 17, the combination of Robinson, Fickes, Miller, Lee and Armstrong discloses the communication device of claim 36. Robinson further discloses a QPN channel **(Quadrature, col. 1, line 49)**. However, the combination fails to explicitly show UMTS forward or return link transmission.

In an analogous art, Sirius discloses UMTS communication **(para. 1)**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a QPN channel that executes UMTS forward or return link transmission as taught in Sirius, with Robinson and Miller, to implement a highly integrated W-CDMA test chip that can be software reconfigured to support mobile station and base station configurations. Sirius, para. 1 and 2.

With regard to claim 28, the combination of Robinson, Fickes, Miller, Lee and Armstrong discloses the communication device of claim 36. However, the combination fails to explicitly show a device that performs ranging measurement to geostationary satellites.

In an analogous art, Sirius disclose a device that performs ranging measurement to geostationary satellites **(GPS system, para. 1)**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a device that performs ranging measurement to geostationary satellites as taught in Sirius, with Robinson and Miller, to implement a highly integrated W-CDMA test chip that can be software reconfigured to support mobile station and base station configurations. Sirius, para. 1 and 2.

11.   **Claims 37-39** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Robinson in view of Fickes, Miller and Sirius.

With regard to claim 37, Robinson discloses a wireless transmitter/receiver

(device 30 in Fig. 3, col. 3, line 56) comprising:

a wideband transmitter **(wideband transmitter 32 in Fig. 3)** comprising at least

one of a first RAM and first registers **(program memory 38 in Fig. 38, col. 3, line 62)**,

arranged to store first parameters **(parameters, col. 4, line 5)** to operate the transmitter

(See Also "the device may be a transmitter or a transceiver and that appropriate

substitution and modification of the wideband receiver circuitry and the receiver

control routines ...", col. 4, lines 19-21);

a wideband receiver **(wideband receiver 32 in Fig. 3, col. 3, lines 56-57)**

comprising at least one of a second RAM and second registers **(program memory 38**

in Fig. 38, col. 3, line 62), arranged to store second parameters **(parameters, col. 4,**

line 5) to operate the receiver;

a signal acquisition component **(antenna 34 in Fig. 3, col. 3, line 57)**; and

a processor **(control processor)** **("...a control processor 37 arranged to**

control and orchestrate operation of the receiver [or transmitter or

transceiver]...", col. 3, line 59-60; see also Fig. 3) in data communication **(control**

processor is connected to the wideband transmitter/receiver and antenna in Fig.

3) with the W-CDMA transmitter, the W-CDMA receiver and the signal acquisition

component, wherein the processor provides for software **(program)** configuration

(control routine) ("program memory (for storing receiver control routines)...", col.

3, lines 62-63 and "control routines are principally applicable to the dynamic

adaptation of a modulation rate for a device ...", col. 4, lines 10-11) of the first and

second parameters.

However, Robinson fails to explicitly show distinctly RAM and registers, CDMA

transmitter and receiver, and waveform processing of signals in accordance with a

satellite navigation signal format and a terrestrial third generation wireless mobile

communications signal format.

In an analogous art, Fickes discloses a wireless transmitter/receiver with RAM

(RAM) and registers (registers) (RAM and ROM for providing storage registers and

programmed operations, col. 3, lines 3-4). Miller discloses a wireless

transmitter/receiver that are CDMA compatible (CDMA, col. 3, line 57). Sirius

discloses waveform processing of signals in accordance with a satellite navigation

signal format and a terrestrial third generation wireless mobile communications signal

format (GPS system, para. 1).

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine transmitter/receiver with RAM and registers as taught in

Fickes; CDMA transmitter/receiver as taught in Miller; and waveform processing of

signals in accordance with a satellite navigation signal format and a terrestrial third

generation wireless mobile communications signal format as taught in Sirius, with

Robinson, to provide for software control (Fickes) and CDMA compatibility (Miller), and

to implement a highly integrated W-CDMA test chip that can be software reconfigured to support mobile station and base station configurations (Sirius).

With regard to claim 38, Robinson further discloses a processor, a transmitter and a receiver that process waveform of signals in accordance with a predetermined format, wherein the predetermined format is IS-95 **(IS-95, col. 1, line 17).**·

With regard to claim 39, Robinson further discloses a transmitter comprises synchronization hardware to slave transmit start epochs to events external to the transmitter **(synchronization, col. 5, line 33)**.

Allowable Subject Matter

12.   Claims 18 and 20-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

13.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
           A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

    If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

    Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BW
July 10, 2007

EDAN ORGAD
PRIMARY PATENT EXAMINER